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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,567	07/31/2000	Li Wen Liu	A-69366/MAK/LM	4144

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EXAMINER
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TRAIL, ALLYSON NEEL

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/628,567

**Applicant(s)**

LIU ET AL.

**Examiner**

Allyson N. Trail

**Art Unit**

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-26 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-26 and 28-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Amendment*

1. Receipt is acknowledged of the Amendment filed August 3, 2006 and the Request for Continued Examination filed September 15, 2006.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16-18, 20-22, 24, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsythe et al (6,540,137), hereinafter Forsyth in view of Rotman et al (2003/0018550), hereinafter Rotman and in further view of Atchley (5,493,315).

With respect to claims 16, 17, 24, and 32 Forsythe teaches the following:

Figure 1 shows a cashier-side unit 76 and a customer-response unit (customer interface unit) 78, which includes a payment terminal. The customer-response unit includes a communication link (communication line) 156. (Col. 32, line 65).

Figure 21 shows the interactive customer interface terminal 78 including a display monitor 78a, which is provided to display retail information including product advertisements to the customer during operation of the checkout system 10.

For example, transaction information such as item price, item description, total amount of the transaction, instructions, etcetera is displayed to the customer via the

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display monitor 78a during operation of the checkout system 10 in either its assisted mode of operation or its self-service mode of operation. (See column 17, lines 14-22).

Shown in figure 1 is the personnel side 42. The personnel side includes a personnel interface 76. Items are scanned with scanner 26 and the monetary amount is displayed on the personnel interface.

Explained below is the communication between the cashier-side unit and the customer-response unit.

"The processing unit 78b communicates with the personnel interface terminal 76 through a data communication line 156 (i.e. a data cable). The processing unit 78b generates output signals on the data communication line 156 which cause instructional messages and transaction information to be displayed on the display monitor 76a (see FIG. 23) of the personnel interface terminal 76. Moreover, data signals generated by the keypad 76b associated with the personnel interface terminal 76 are transmitted to the processing unit 78b via the communication line 156 when retail personnel touches a particular key associated with the keypad 76b." (Col. 32, line 64 – Col. 33, line 7).

The customer-response unit includes a payment terminal 44, which consists of a card reader, a coin and bill acceptor, and a keypad. The customer chooses his preferred method of payment and completes the transaction.

With respect to claims 16, 20, 25, and 26 (rejected below), Forsythe teaches in column 17, lines 28-51, displaying customer-specific messages to the customer on the display monitor 78a at certain times during a checkout transaction. Customer-specific messages are retail messages that are customized for a given customer based on the

purchasing habits or other information that is unique to the customer. For example, a customer-specific message may include a customer-specific advertisement, which advertises a product that was purchased by the customer during a previous visit to the retailer's store. In another example a customer-specific message may include a customer-specific advertisement that advertises a product, which may be used in conjunction with a product that was previously scanned or otherwise entered into the checkout system 10 during the current checkout transaction. For example, if the checkout clerk scans a case of beer that is included in the customer's items for purchase, an advertisement relating to pretzels may be displayed to the customer on the display monitor 78b since pretzels are commonly consumed with beer.

This advertisement information taught by Forsythe is clearly content which is unrelated to data essential for completion of the transaction. When the customer views the advertisement on the display, for example for pretzels, the customer either responds by buying pretzels or is non-responsive by not buying the pretzels.

As explained in column 17, as well as column 34, line 19 – column 35, line 4, the checkout system 10 of the present invention is configured to retrieve information from a customer profile database, which contains such information (e.g. previous purchases) about each of the retailer's customers.

Additionally, the processing unit 78b communicates with the retailer's network 184 in order to access a customer profile database maintained in a network memory device such as a network mass storage device associated with a network central server. The customer profile database includes unique, customer-specific retail

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information associated with each of the retailer's customers. The customer's profile within the customer profile database may also include customer-specific retail information such as the customer's shopping or purchasing history. For example, a record of the items purchased during recent visits to the retailer's store may be included in the customer's profile. Moreover, a record may also be made in the customer's profile if the customer redeems a certain type of voucher or coupons or responds to a certain type of promotion.

Contents of the customer profile database are utilized in order to generate customer-specific messages to the customer during a checkout transaction. In addition to transaction data, customer-specific advertisements may be displayed on a portion of the display monitor 78a in order to influence the customer to buy additional items. For example, the customer profile associated with a given customer may be initially retrieved from the customer profile database. Thereafter, the processing unit 78b causes customer-specific advertisements to be displayed on the display monitor 78b based on the contents of the customer's profile. For example, if the customer profile of a given customer indicates that the customer buys a certain type of beer during each of his or her visits to the retailer's store, the processing unit 78b may cause an advertisement for the certain type of beer to be displayed on the display monitor 78b in order to entice the customer to buy beer if the checkout clerk has not yet entered beer into the checkout system 10.

With respect to claim 21, Forsythe teaches figure 9B, which shows a signature capture device 102. The processing unit 78b (part of the customer-response unit) communicates with the signature capturing device.

With respect to claim 22, Forsythe teaches in column 26, lines 54-58 that the processing unit 78b communicates with the electronic payment terminal in order to receive data read from the customer's card or codes such as PIN numbers which are input by the customer via use of the keypad.

Forsythe's teachings above fail to teach that customers can immediately respond to the content by interacting with the customer-response unit.

With respect to claim 16, 26 (rejected below), and 32, Atchley discloses in column 4, lines 45-57 having the customer immediately respond to the content by interacting with a customer-response unit. Specifically, "messages relating to the sale of a carwash are shown on the screen 125. Thus, in FIG. 1, the keys of the keypad 130 can permit the user to select in association with his or her carwash a hot wax, a tire scrub, or drying of the vehicle, at extra charges, simply by pressing the associated adjacent key. If desired, the charges for the carwash options can be added to the fuel sale transaction charge when the customer's card is charged, by communicating the depression of a key on keypad 130 to the CRIND microprocessor. Similarly, the messages on the screen can call for the insertion of additional cash into the cash acceptor 24, or the like.

In view of Atchley's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to allow the customer to

immediately respond to the content (taught by Atchley) at the side unit (taught by Forsythe). One would be motivated to include this feature in order to for the cashier to clearly recognize that additional items are to be added to the customer's purchase. Additionally, the price of the added items may be easily totally up so the customer will know the total cost of his/her purchase.

Forsythe's teachings in combination with the teachings of Atchley above fail to teach transmitting the customer input (payment information) to a remote service provider for authorization.

With respect to claims 16 and 18, Rotman teaches figure 2B, which is an exemplary block diagram depicting an authorization and posting process, consistent with the principles of the present invention. During a transaction with a customer, merchant point-of-sale ("POS") device 222 sends an authorization request to credit card clearinghouse system 224. The authorization request from merchant POS device 222 will result in an authorization decision from authorization system 224 once the authorization system 224 obtains authorization from issuer mainframe 226, which is the authorization decision maker. Issuer mainframe 226 uses known methods to determine whether a transaction should be authorized, including making sure that the card is not over its limit, verifying billing address information, and referencing lists of card numbers corresponding to lost or stolen cards. (paragraph 0059).

In view of Rotman's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to transmit the payment received by Forsythe's payment terminal to a remote service provider for authorization.



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Although this step is not disclosed by Forsythe, all payment systems that use credit or debit cards check for authorization before fully completing the purchasing transaction. One would be motivated to authorize the payment card in order to ensure that funds are available to cover the cost of the product being purchased.

4. Claims 19, 23, 26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsythe in combination with both Atchley and Rotman and in further view of Smith et al (2003/0126020), hereinafter Smith.

Forsythe's teachings in combination with the teachings of Atchley and Rotman are discussed above. These teachings include the limitations disclosed in claims 26 and 28-30. Forsythe additionally teaches printing a receipt (figure 14). The combination however fails to teach storing electronic receipts and also fails to teach the customer input being biometric data.

With respect to claims 19, 23, 26, and 31, Smith teaches in paragraph 0017, that typically, an electronic receipt will be generated by a vendor device at a point-of-sale. When a transaction takes place, an electronic receipt may be transmitted from the vendor device to a purchaser device where the receipt may be stored for further processing within the device or for further transmission to other devices and systems.

Smith further teaches in paragraph 0032 that some embodiments of WPD 2 may also comprise a biometric input device 10 to verify user identity. Biometric input device 10 may use thumb print analysis, retinal scan analysis or another identification method to identify the WPD user. Once the user is identified, user identity can be matched to

account data to ensure that unauthorized users do not gain access to sensitive information or other user's accounts.

In view of Smith's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to electronically store the receipts and additionally use biometric data to identify the customer. Forsythe teaches printing the receipt for the customers. The printed receipts are used in part for returns. One would be motivated to store all customer receipts in order to make customer returns easier if the printed receipt is lost. Additionally, Forsythe teaches using a PIN to ensure the authenticity of the customer. Using biometric data in addition to using a PIN would only further ensure the authenticity of the payment card owner.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 16, 26, and 32 have been considered but are moot in view of the new ground(s) of rejection. Atchley clearly teaches customers immediately responding to content by interacting with the customer-response unit.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (703) 872-9306.

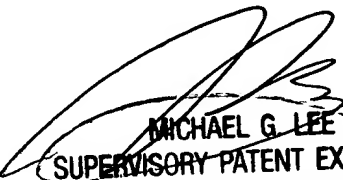
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.trail@uspto.gov].

*All Internet e-mail communications will be made of record in the application file.*

*PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

ay

Allyson N. Trail  
Patent Examiner  
Art Unit 2876  
September 26, 2006

  
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